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10/814,528

03/31/2004

Tom E. Pearson

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EXAMINER

GIRARDI, VANESSA MARY

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TOM E. PEARSON,
ROBERT R. MARTINSON, and
TERY DISHONGH

Appeal 2008-2853
Application 10/814,528
Technology Center 2800

Decided: July 28, 2008

Before EDWARD C. KIMLIN, CHUNG K. PAK, and THOMAS A.
WALTZ, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-25. Claim 1 is illustrative:

1. An integrated circuit socket comprising:

a socket housing;

a hinged cover secured to said housing; and

an infrared transmissive cap removable secured to said cover.

The Examiner relies upon the following references as evidence of obviousness:

Edwin	5,262,594	Nov. 16, 1993
Ciambrone	5,626,280	May 6, 1997
Yu	6,626,691 B2	Sep. 30, 2003
Liao	6,877,990 B2	Apr. 12, 2005

Appellants' claimed invention is directed to an integrated circuit socket. The socket comprises a housing, a hinged cover secured to the housing and an infrared transmissive cap that is removably secured to the cover.

The appealed claims stand rejected under 35 U.S.C. § 103(a) as follows:

(a) claims 1-5, 8-14, 17-21, 23, and 25 over Liao in view of Ciambrone,

(b) claim 22 over the references stated in (a) above further in view of Edwin,

(c) claims 6, 7, 15, 16, and 24 over the references stated in (a) above further in view of Yu.

Appellants submit separate arguments only for claims 1 and 21. Accordingly, claims 1-20 stand or fall together, as do claims 21-25.

We have thoroughly reviewed each of Appellants' arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary

skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejections.

There is apparently no dispute that Liao, like Appellants, discloses an integrated circuit socket comprising a socket housing, a hinged cover secured to the housing, and a cap removably secured to the cover. Liao is silent with respect to the material from which the hinged cover is made, and whether the cover is infrared transmissive, as presently claimed. However, it is our view that Liao's silence on this matter does not undermine the conclusion of obviousness for the claimed subject matter reached by the Examiner.

As pointed out by the Examiner, Liao expressly teaches that the connector assembly is welded onto the printed circuit board and that holes 302 and 303 in the cover of the assembly facilitate the dissipation of heat generated during the welding (col. 4, ll. 6-7). Since Appellants' Specification acknowledges that it was conventional in the art to employ infrared heating in a mount reflow oven to connect the socket to a circuit board, as recited in claim 21, one of ordinary skill in the art would have found it obvious to use infrared heating for the welding step of Liao, and to select an infrared transmissive material for the cap of Liao. As explained by the Examiner, one of ordinary skill in the art is informed by Liao of the problem of heat generated during welding, ergo, the provision of holes 302 and 303, and we are confident that one of ordinary skill in the art would have found it obvious to use an infrared transmissive cap as a solution to the readily apparent problem of heat generation. *In re Ludwig*, 353 F.2d 241, 244 (CCPA 1965); *see also KSR Int'l Co. v. TeleflexInc.*, 127 S. Ct. 1727, 1741 (2007) ("Under the correct analysis [for obviousness], any need or

problem known in the field of endeavor at the time of the invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.”). The Ciambrone reference cited by the Examiner evidences that the use of an infrared transmissive cap during soldering was known in the art.

Contrary to Appellants' argument, Liao's silence regarding the infrared transmissivity of the cap is not a "teaching away" to one of ordinary skill in the art in selecting the appropriate material for Liao's cap. Rather, such silence indicates that it would have been a matter of obviousness for the skilled artisan to select a suitable material for the cap.

Also, we find no merit in Appellants' argument that "[t]here is not even a recognition that the cover of Liao would heat up in the course of reflow" (Principal Br. 11, 5th para.). As noted above, Liao specifically recognizes the need to dissipate generated heat by providing holes 302 and 303 in the cap. Furthermore, as set forth by the Examiner, the issue on appeal is the infrared transmissivity of the **cap**, not the cover of the assembly.

Appellants do not advance separate substantive arguments for separately rejected claims 22 and 6, 7, 15, 16, and 24 (*see* Principal Br. 12).

As a final point, we note that Appellants base no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the inference of obviousness established by the applied prior art.

In conclusion, based on the foregoing, the Examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(effective Sept. 13, 2004).

AFFIRMED

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